

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

February 09, 2005

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE.

APPLICATION NUMBER: 60/534,401

FILING DATE: *January 07, 2004*

RELATED PCT APPLICATION NUMBER: *PCT/US05/00644*



Certified by

Under Secretary of Commerce
for Intellectual Property
and Director of the United States
Patent and Trademark Office



13281 U.S. PTO

Please type a plus sign (+) inside this box → ☐

PTO/SB/16 (8-00)

Approved for use through 10/31/2002. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).

| INVENTOR(S) | | | | | |
|--|------------------------|---|----------------|---|----------------|
| Given Name (first and middle [if any]) | Family Name or Surname | Residence (City and either State or Foreign Country) | | | |
| Christopher J. | Hession | Richmond, Virginia | | | |
| <input type="checkbox"/> Additional inventors are being named on the _____ separately numbered sheets attached hereto | | | | | |
| TITLE OF THE INVENTION (280 characters max) | | | | | |
| Pharmaceutical Blister and Carton System | | | | | |
| Direct all correspondence to: CORRESPONDENCE ADDRESS | | | | | |
| <input type="checkbox"/> Customer Number | | <input style="width: 150px;" type="text"/> | | → <div style="border: 1px solid black; padding: 5px; width: fit-content;">Place Customer Number Bar Code Label here</div> | |
| OR Type Customer Number here | | | | | |
| <input checked="" type="checkbox"/> Firm or Individual Name | James C. Wray | | | | |
| Address | 1493 Chain Bridge Road | | | | |
| Address | Suite 300 | | | | |
| City | McLean | State | VA | ZIP | 22101 |
| Country | US | Telephone | (703) 442-4800 | Fax | (703) 448-7397 |
| ENCLOSED APPLICATION PARTS (check all that apply) | | | | | |
| <input checked="" type="checkbox"/> Specification Number of Pages | | <input style="width: 50px;" type="text" value="15"/> | | <input type="checkbox"/> CD(s), Number <input style="width: 80px;" type="text"/> | |
| <input checked="" type="checkbox"/> Drawing(s) Number of Sheets | | <input style="width: 50px;" type="text" value="12"/> | | <input type="checkbox"/> Other (specify) <input style="width: 150px;" type="text"/> | |
| <input type="checkbox"/> Application Data Sheet. See 37 CFR 1.76 | | | | | |
| METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT (check one) | | | | | |
| <input type="checkbox"/> Applicant claims small entity status. See 37 CFR 1.27. | | | | FILING FEE AMOUNT (\$) | |
| <input checked="" type="checkbox"/> A check or money order is enclosed to cover the filing fees | | | | \$160.00 | |
| <input type="checkbox"/> The Commissioner is hereby authorized to charge filing fees or credit any overpayment to Deposit Account Number: <input style="width: 150px;" type="text"/> | | | | | |
| <input type="checkbox"/> Payment by credit card. Form PTO-2038 is attached. | | | | | |
| The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government. | | | | | |
| <input checked="" type="checkbox"/> No. | | | | | |
| <input type="checkbox"/> Yes, the name of the U.S. Government agency and the Government contract number are: _____ | | | | | |

Respectfully submitted,

SIGNATURE

TYPED or PRINTED NAME

James C. Wray

TELEPHONE

(703) 442-4800

Date

01/07/04

REGISTRATION NO.

(if appropriate)

Docket Number:

22,693

WESTVACO

USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT

This collection of information is required by 37 CFR 1.51. The information is used by the public to file (and by the PTO to process) a provisional application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 8 hours to complete, including gathering, preparing, and submitting the completed provisional application to the PTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Box Provisional Application, Assistant Commissioner for Patents, Washington, D.C. 20231.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

**FEE TRANSMITTAL
for FY 2004**

Effective 10/01/2003. Patent fees are subject to annual revision.

☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$)**160.00****Complete if Known**

| | |
|----------------------|------------------------|
| Application Number | |
| Filing Date | 01/07/2004 |
| First Named Inventor | Christopher J. Hession |
| Examiner Name | |
| Art Unit | |
| Attorney Docket No. | WESTVACO |

METHOD OF PAYMENT (check all that apply)☒ Check ☐ Credit card ☐ Money Order ☐ Other ☐ None☐ Deposit Account:

| | |
|------------------------|--|
| Deposit Account Number | |
| Deposit Account Name | |

The Director is authorized to: (check all that apply)

☐ Charge fee(s) indicated below ☐ Credit any overpayments
☐ Charge any additional fee(s) or any underpayment of fee(s)
☐ Charge fee(s) indicated below, except for the filing fee to the above-identified deposit account.
FEE CALCULATION**1. BASIC FILING FEE**

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|------------------------|--------------------------|
| 1001 770 | 2001 385 | Utility filing fee | |
| 1002 340 | 2002 170 | Design filing fee | |
| 1003 530 | 2003 265 | Plant filing fee | |
| 1004 770 | 2004 385 | Reissue filing fee | |
| 1005 160 | 2005 80 | Provisional filing fee | 160 |
| SUBTOTAL (1) | | | (\$)160.00 |

2. EXTRA CLAIM FEES FOR UTILITY AND REISSUE

| Total Claims | Extra Claims | Fee from below | Fee Paid |
|--------------------|--------------|----------------|----------|
| Independent Claims | -20** = | X | |
| Multiple Dependent | -3** = | X | |

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description |
|----------------------------|----------------------------|--|
| 1202 18 | 2202 9 | Claims in excess of 20 |
| 1201 86 | 2201 43 | Independent claims in excess of 3 |
| 1203 290 | 2203 145 | Multiple dependent claim, if not paid |
| 1204 86 | 2204 43 | ** Reissue independent claims over original patent |
| 1205 18 | 2205 9 | ** Reissue claims in excess of 20 and over original patent |

SUBTOTAL (2) (\$)

**or number previously paid, if greater. For Reissues, see above

FEE CALCULATION (continued)**3. ADDITIONAL FEES**

| Large Entity Fee Code (\$) | Small Entity Fee Code (\$) | Fee Description | Fee Paid |
|----------------------------|----------------------------|--|----------|
| 1051 130 | 2051 65 | Surcharge - late filing fee or oath | |
| 1052 50 | 2052 25 | Surcharge - late provisional filing fee or cover sheet | |
| 1053 130 | 1053 130 | Non-English specification | |
| 1812 2,520 | 1812 2,520 | For filing a request for <i>ex parte</i> reexamination | |
| 1804 920* | 1804 920* | Requesting publication of SIR prior to Examiner action | |
| 1805 1,840* | 1805 1,840* | Requesting publication of SIR after Examiner action | |
| 1251 110 | 2251 55 | Extension for reply within first month | |
| 1252 420 | 2252 210 | Extension for reply within second month | |
| 1253 950 | 2253 475 | Extension for reply within third month | |
| 1254 1,480 | 2254 740 | Extension for reply within fourth month | |
| 1255 2,010 | 2255 1,005 | Extension for reply within fifth month | |
| 1401 330 | 2401 165 | Notice of Appeal | |
| 1402 330 | 2402 165 | Filing a brief in support of an appeal | |
| 1403 290 | 2403 145 | Request for oral hearing | |
| 1451 1,510 | 1451 1,510 | Petition to institute a public use proceeding | |
| 1452 110 | 2452 55 | Petition to revive - unavoidable | |
| 1453 1,330 | 2453 665 | Petition to revive - unintentional | |
| 1501 1,330 | 2501 665 | Utility issue fee (or reissue) | |
| 1502 480 | 2502 240 | Design issue fee | |
| 1503 640 | 2503 320 | Plant issue fee | |
| 1460 130 | 1460 130 | Petitions to the Commissioner | |
| 1807 50 | 1807 50 | Processing fee under 37 CFR 1.17(q) | |
| 1806 180 | 1806 180 | Submission of Information Disclosure Stmt | |
| 8021 40 | 8021 40 | Recording each patent assignment per property (times number of properties) | |
| 1809 770 | 2809 385 | Filing a submission after final rejection (37 CFR 1.129(a)) | |
| 1810 770 | 2810 385 | For each additional invention to be examined (37 CFR 1.129(b)) | |
| 1801 770 | 2801 385 | Request for Continued Examination (RCE) | |
| 1802 900 | 1802 900 | Request for expedited examination of a design application | |

Other fee (specify)

*Reduced by Basic Filing Fee Paid

SUBTOTAL (3) (\$)**SUBMITTED BY**

| | | | | | |
|-------------------|---------------|-----------------------------------|------------|-----------|----------------|
| Name (Print/Type) | James C. Wray | Registration No. (Attorney/Agent) | 22,693 | Telephone | (703) 442-4800 |
| Signature | | Date | 01/07/2004 | | |

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

This collection of information is required by 37 CFR 1.17 and 1.27. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Pharmaceutical Blister and Carton System

BACKGROUND OF THE INVENTION

There are many examples of packages with features meant to provide some level of child resistance to access to blister cards and medications therein.

Examples include special peel-away backings on the blister, attaching the blister to some other carrier (such as MeadWestvaco's SurePak product), sealing the blister between additional layers of material, or some combination of, these (such as MeadWestvaco's DosePak product).

Needs exist for additional packaging for blister cards in a manner that provides some level of child resistance without preventing adults from gaining access to the blister cards and their contents.

SUMMARY OF THE INVENTION

This invention is primarily for blister packed medications.

This invention has two primary components, a blister card and an outer package.

In this invention, both the blister card and the outer package have unique locking mechanisms that interact with each other. The blister card is inserted or placed in the outer package and locks immediately without having to add any further processing to the outer package or to the blister card. The user is able to expose the blisters from the outer package by disengaging the lock.

13281 U.S. PTO

The blister card is similar to typical blister cards available on the market and is made from any materials known to the art for blister packaging. These materials normally include a formable, pliable sheet material, usually plastic, into which one or more individual cavities or blisters are formed. The separated cavities are loaded with doses of product and sealed with one or more layers of puncturable or tearable sheet material, such as aluminum foil.

The blister card in this case contains a stop, which may be one or more additional cavities that form an interference mechanism, or an interference blister cavity. The interference blister cavity does not hold medication. The interference blister is meant to be trapped by a locking mechanism and stopped by a catch flap included in the outer package. The locking mechanism in the outer package prevents the blister card from being exposed from the outer package unless a release mechanism is activated. The interference blister is located near one end of the blister card, typically the end that corresponds to the sealed end of the outer package. The interference blister is near a blister card's inner end, which is the trailing end of the blister card as it is being exposed from the outer package.

The outer package can be formed, folded, or assembled from one or more pieces of material. The material or combination of materials used can be of any type that meets the functional needs of the outer package. For example, a paperboard, box or a coated paper or plastic sleeve with a locking insert may satisfy the

requirements. The shape of the outer package preferably mimics that of the blister card. The outer package shape can vary so long as there is a slot into which the blister card can be concealed. The outer package contains an internal member, the locking mechanism, that abuts the stop or interference blister, preventing the blister card from unintentionally sliding outward through the open end of the package. The user must activate a release mechanism in order to slide the blister card outward through the package. Preferably, an additional member, the catch flap, is extended inward from the open end of the outer package to engage the interference blister and to prevent the blister card from being separated from the outer package.

In a preferred example, one continuous blank of paperboard is cut, scored, folded and glued to create a rectangular carton, mimicking the general shape of the blister card. The carton contains a front panel, two side panels, a back panel, an elongated internal panel, a number of functional-locking panels, and closure panels at one end of the carton. The elongated internal panel is approximately equal in dimension to the width of the front panel, but is not so long as to interfere with the folding scores.

The internal panel has an additional series of panels attached to the end closest to the package end closure flaps. The first panel is attached by a score and is folded 180°, unprinted side-to-unprinted side and later is adhered to the internal panel by any means known. The adhered panel has another

panel extended from it that is folded approximately 180°, printed side-to-printed side, but is not adhered. This panel becomes the locking and release mechanism for the blister card in the package. The first adhered panel allows the locking panel to be positioned appropriately with respect to the stop or interference blister and controls the angle of the locking panel. The folding sequence and the memory in the paperboard provide the needed spring back for the locking and release mechanism. The new springing and locking may be provided by different materials and structures.

The locking panel has an extension formed by a cut extending into the attached panel or has an aperture cut that extends through both the attached panel and the locking panel. This cut or aperture extends through the score between the locking panel and the attached panel. The interrupted score between the adhered panel and the locking panel on both sides of the extension act as the pivot for the locking panel. The extension creates the lever for the release mechanism. When the lever is activated, the locking panel rotates about the score pivot point, and the locking panel is moved out of the way of the interference blister.

The internal panel also contains an aperture or one cut or a series of cuts that corresponds in location to the aperture or cuts on the locking panel. Likewise, the back panel contains an aperture or one cut or a series of cuts that correspond to those on the internal panel and the locking panel. The internal panel

is folded 90° to one side panel, and the back panel is folded 90° to the other side panel. The back panel is adhered to the internal panel, such that the panels are aligned with each other and the apertures, cuts and scores are aligned with the locking mechanism. The aligned cuts and apertures allow the user to activate the lever/lock release mechanism when the package is formed.

Closure flaps are extended from end edges on the back and front panels or side panels.

Additional panels and features are extended from available raw edges or surfaces to create informational literature pockets, visual design features, and the like.

One panel feature that is added to the packages is a catch flap. The catch flap is attached to the internal panel near the open end of the package and extends into the package. The catch flap is long enough to ride on top of the blisters without getting caught on any of them, and yet the catch flap will still catch the interference blister. This prevents the user from separating the blister card and the outer package, thus increasing the likelihood that the child resistant feature will be reactivated by pushing the blister card back within the package following each use of the product.

The catch flap could also be made such that it would lay flat under the blister card, coinciding with the layered side of the blister card. With the flap in this orientation the

interference blister would be designed such that the catch flap would extend up into the cavity of that blister.

Other examples include additional panels that can be used as fold over flaps for improved appearance, closure flaps, or tuck in flaps at the open end. A panel that is included for aesthetics purposes extends from the front panel and is folded inward 180° unprinted side-to-unprinted side and adhered to an inside of the front panel. That effectively removes a raw edge, giving a more pleasing and finished look to the package.

A modified blister card has a fold-over paper card carrier aligned opposite apertures. One group of apertures on one side of the fold-over and card carrier receives blisters from a blister card. The opposite group of apertures on the other side of the carrier provides access to foil covering the back of each blister for tearing the foil and removing the medication. The blister card carrier has a stop formed at one end spaced from the blister and foil openings.

In a preferred form, the stop is a large hollow blister with a flange that fits between the sides of the carrier. The large blister fits through a large hole on the first side of the carrier and is aligned with a second large hole on the other side of the carrier so that a releasable lock in the inner end of the outer package and a catch flap at the open end of the package may engage the large stop blister.

The carrier is folded over a conventional blister card, for example having twelve blisters in two rows of six, and slid into

the outer package. The opposite sides of the carrier may be glued or may be held together by insertion in the outer package.

These and further and other objects and features of the invention are apparent in the disclosure, which includes the above and ongoing written specification, with the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

Figure 1 shows a blister sheet ready for sliding into a package.

Figure 2 is a cross-sectional view of the blister pack held in the package by a locking flap.

Figure 3 shows the blister pack partially slide out of the package after pushing inward on a release lever to lift the locking flap.

Figure 4 shows a catch flap in engagement with the locking blister.

Figure 5 shows a one-piece package blank.

Figure 6 shows the locking mechanism and catch flap folded inward 180° on the inner panel.

Figure 7 shows the locking flap folded back 180° with the lever extended before the adhered panel is secured to the inner panel.

Figure 8 shows the inner panel folded inward 180°.

Figure 9 shows one side panel and the back panel folded inward 180° to align with and adhere to the inner panel.

Figure 10 shows another blank with an aesthetic panel for providing a smooth edge on the open end of the front panel.

Figure 11 shows a similar outer package blank with a pull-up lock release.

Figure 12 shows a similar blank with a push-down lock release and related apertures, cuts and scores.

Figure 13 shows a similar blank with a literature-receiving flap.

Figure 14 shows a box with a literature-receiving flap.

Figure 15 shows the blister card with a hollow interference blister.

Figure 16 shows components of an alternate blister card and carrier.

Figure 17 shows an assembly of the alternate blister card carrier.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS

Referring to Figures 1-4, a blister package is generally indicated by the numeral 1.

Two primary components are a blister card 3 and an outer package 5.

The blister card is similar to typical blisters available on the market and can be made from any materials known to the art for blister packaging. These materials normally include a pliable sheet material 7, usually plastic, in which one or

more cavities or blisters 9 are formed. The cavities are loaded with capsules 11 with doses of products and are sealed with one or more layers of sheet material, such as aluminum foil 13. The aluminum foil is punched, cut or torn to remove one capsule at a time.

The blister card 3 has blank spaces 15 without capsules and has near one end 17 one or more additional blister cavities 19 that form an interference blister 21. This interference blister cavity does not hold medication; it is meant to be trapped by the locking mechanism included in the outer package 5. The locking mechanism in the outer package prevents the blister card from being slid outward from the outer package unless the release mechanism 25 is activated.

The interference blister 21 is located near one end 17 of the blister card 3 that corresponds to the sealed end 27 of the outer package 5.

The outer package 5 contains the internal locking mechanism 23 that abuts the interference blister 21, preventing the blister card 3 from sliding outward in the package 5. The user must activate a release mechanism 25 in order to slide the blister card 3 outward from the package 3. An additional catch flap member 41 extends from the open end 42 of the outer package 5 to prevent the blister card from being separated from the outer package.

As shown in Figures 2-4, the package 5 has a locking mechanism 23. A locking flap 31 has an end 33 which engages

interference blister 21 and holds the blister pack 3 inside the package 5. An adhered panel 37 has a fold 39 which supports flap 31. The resilience of the adhered panel 37 and the locking flap 35 around the fold 39 holds the end 33 of the flap 31 downward until the locking flap is intentionally lifted.

Figure 3 shows the lifting of the locking flap 31 and engaging 33 by pushing downward on the release mechanism 25 on the outer package. The release mechanism pushes downward on the lever 35, which is an extension of locking flap 31, rotating flap 31 around the resilient fold 39 and lifting the end 33 of the flap above the interference blister 21. That allows the blister pack 3 to be slid outward in the package in the direction 40.

As shown in Figure 4, once the mechanism 25 is released the locking flap 31 springs downward by the memory resilience of the fold 39. A catch flap 41 at the open end 42 of outer package 5 has an end 43 which is held above the adjacent blister cavities 9, because the length of the flap 41 exceeds the spacing of the blister cavities. When the blank spaces 15 of the blister pack 3 reach the flap 41, the catch flap drops under the spring pressure of the fold 49 and the end 43 engages the interference blister 21, preventing complete removal of the blister pack 3 from the outer package 5.

After one capsule has been removed from the blister card by puncturing the foil covering the cavity in which that capsule is stored, the blister card 3 is pushed back into the package. The blisters 9 lift flaps 41 and 31 until flap 31 drops into place

with the edge 33 adjacent the interference blister 21, returning the package to the condition shown in Figure 2.

As shown in Figures 5-13, the outer package 5 can be formed, folded, or assembled from one piece 51 of a foldable, relatively rigid sheet material. The material (or combination of materials) used can be of any type that meets the functional needs of the outer package, preferably paperboard, and forms a slot 52 into which the blister card 3 can be concealed.

One continuous blank 51 of paperboard is cut 53, scored 55, and folded 57 to create a rectangular carton 51 in the general shape of the blister card 3. The carton 51 contains a front panel 63, a back panel 65, two side panels 67, 69, an elongated internal panel 71, functional-locking panels 30, 41, and closure panels 77, 79 at one end of the carton. The elongated internal panel 71 is approximately equal in dimension to the width of the front panel 63, but is not so long as to interfere with the folding scores 55. Internal panel 71 has a series of panels 30 attached to the end closest to the closure flaps 77, 79. The first panel 37 is attached by a score 83 and is folded 180°, unprinted side-to-unprinted side and later is adhered to the internal panel 71. This adhered panel 37 has locking panel flap 31 extended from it that is folded approximately 180°, printed side-to-printed side, but is not adhered. This panel 31 becomes the locking and release mechanism 23 for the package. The first attached panel 37 allows the locking panel flap 31 to be positioned appropriately with respect to the interference blister

21 at the angle of the locking panel shown in Figure 2. The folding sequence and the memory in the paperboard provide the needed spring back for the locking 23 and release 25 mechanisms. The locking panel flap 31 has a cut 83 extending into the attached panel 81. The cut 83 is located between the folds 39 that join the locking panel flap 31 to the attached panel 81.

When the panel 37 is adhered to the inside of inner panel 71, the folds 39 act as the pivot and create the lever 35 for the release mechanism 25. When the lever 35 is activated, the locking panel flap 31 rotates about the fold pivots 39 and is moved out of the way of the interference blister 21, as shown in Figure 2. The internal panel 71 also contains an aperture 73 that corresponds in location to the lever 35 on the locking panel flap 31. Likewise, the back panel 65 contains a cut 75 that forms release lever 25 in a position that corresponds to the aperture 73 on the internal panel and the lever 35 on the locking panel flap 31.

As shown in Figures 7-9, in assembling the outer package, the locking panel 31 is bent around folds 39, which extends the lever 35. Then the adhered panel 37 is adhered to the inside of the internal panel. The internal panel 71 is folded 180°, and then the back panel 63 is folded 180° and adhered to the internal panel, such that the panels are aligned with each other, as shown in Figures 7 and 8, and the aperture cuts 73, 75 and folds 39 are aligned with the locking 23 and release mechanisms 25. These

cuts and apertures allow the user to activate the lever/lock release mechanism when the package is formed.

Additional panel features are extended from available raw edges or surfaces to create closure flaps, informational literature pockets, visual design features, and the like. One panel feature that is added to the package is a catch flap 41.

As shown in Figures 5-10, the catch flap 41 is attached to the internal panel 71 near open end 42 of the package 5 and extends into the package. The catch flap 41 is long enough to ride on top of the blisters 9 without getting caught on any of them, as shown in Figures 2 and 3, and yet will still catch the interference blister 21, as shown in Figure 4. That prevents the user from separating the blister card 3 and the outer package 5, thus increasing the likelihood that the child resistant feature will be reactivated by sliding the blister card 3 back into the outer package 5 following each use of the product.

As shown in Figure 11, a catch flap 91 is made such that it lies flat under the blister card 3, coinciding with the foil 13 layered side of the blister card. With the flap in this orientation the interference blister 21 is hollow and without a backing, such that the catch flap 91 extends up into the cavity of the blister 21.

Figure 11 shows a modified locking panel flap 92 that has a finger hole 95 rather than a lever. To release the blister card for sliding in the package, a user inserts a finger through aligned holes 99, 73, 97 and 95 to lift locking panel flap 92 out

of engagement with the interference blister 21 to release the blister card 3.

Other examples include additional panels that can be used as fold over flaps for improved appearance, closure flaps, or tuck in flaps.

Tuck-in flap 101 is shown connected to the open end 42 of front panel 63 in Figures 12 and 13. Also shown joined to back panel 65 are panels 102, 104 and glue panel 106 which become a literature slot flap 108.

Figures 5-10 illustrate a panel 62 that has been included for aesthetics purposes. This aesthetic panel extends from the open end 42 of the front panel 63 and is folded 180° unprinted side-to-unprinted side and adhered to the inside of front panel 63. That effectively removes a raw edge, giving a more pleasing and finished look to the package.

Figure 15 shows a blister card 3 with hollow interference blisters 21 for engagement by a catch flap such as shown in Figure 11.

Figure 16 shows an alternate blister card 103 formed from a large card 105 with a central fold 107 and opposite sides 109, 111 with similar cutouts 113, 115. Cutouts 113 on side 109 receive blisters 117 from standard twelve-dose blister card 119. Cutouts 115 provide access to the foil on the back of card 119 for piercing the foil to remove individual doses. A large opening 121 near an inner end 123 of side 109 receives a hollow upper portion 127 of a stop 125. A base 129 of stop 125 is

secured between the sides 109 and 111 when they are joined together.

Figure 17 shows the assembly of card 119 and stop 125 into apertures in side 109 of the blister card 103 before side 111 is folded over side 109. The sides may be glued with a strip of adhesive near the remote edges or held together by insertion in the outer package 5.

In an alternate form, an aperture may be provided in side 111 opposite the hollow portion 127 to allow use with a catch flap such as shown in Figure 11.

While the invention has been described with reference to specific embodiments, modifications and variations of the invention may be constructed without departing from the scope of the invention.

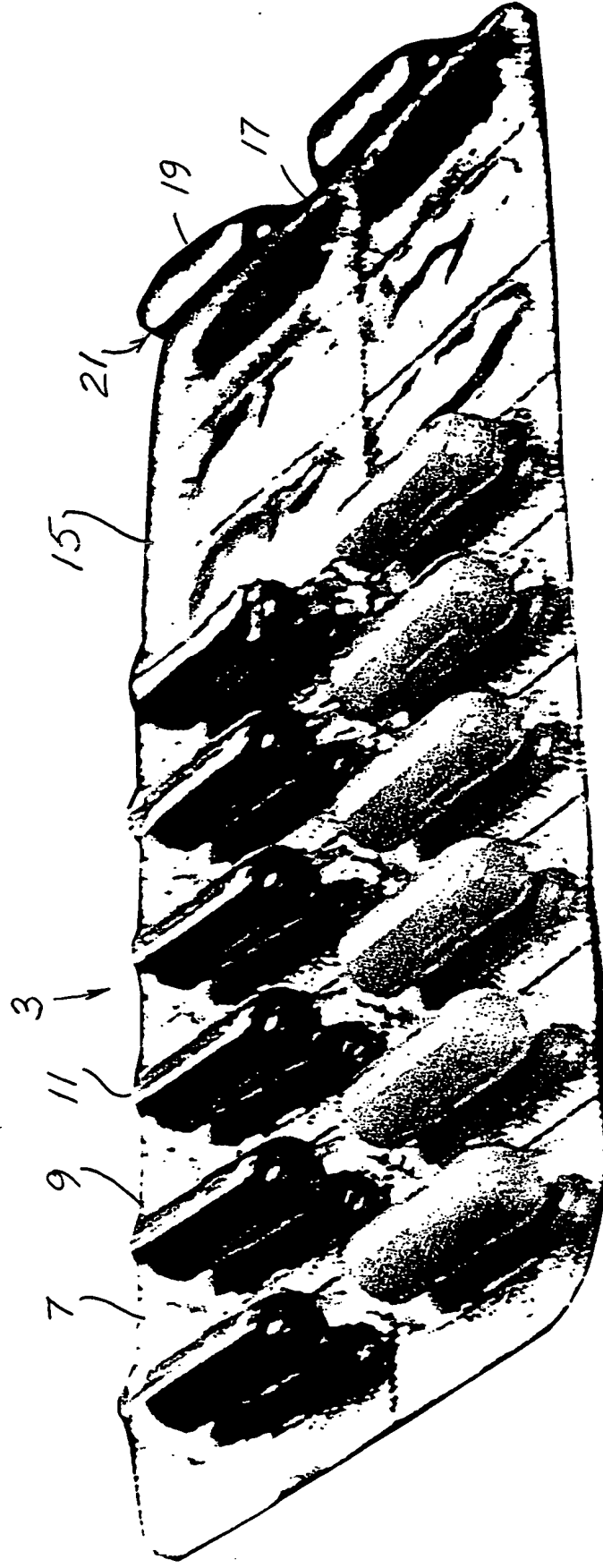
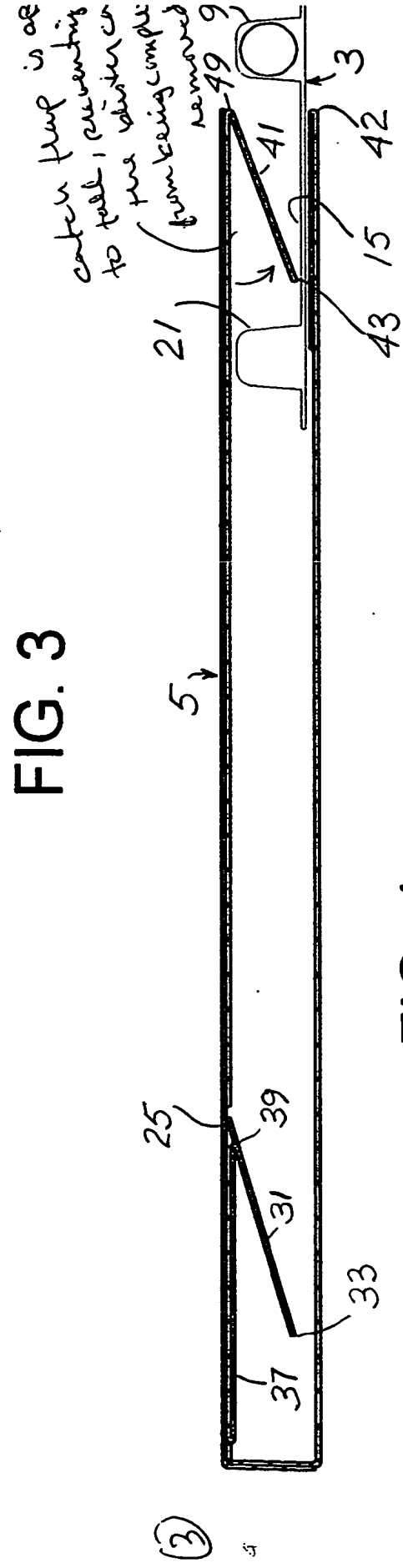
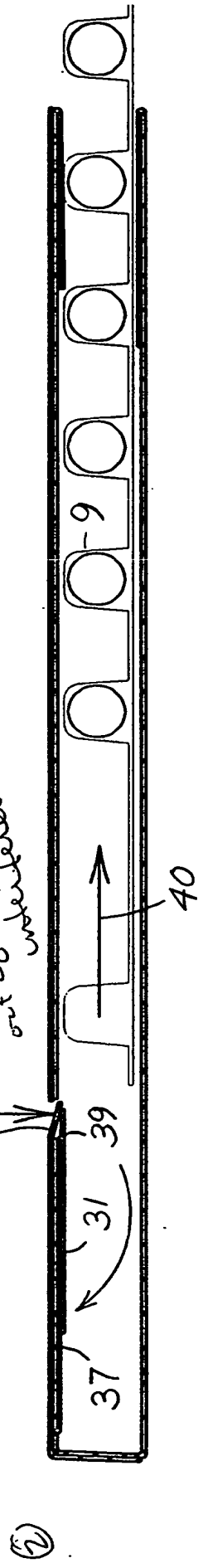
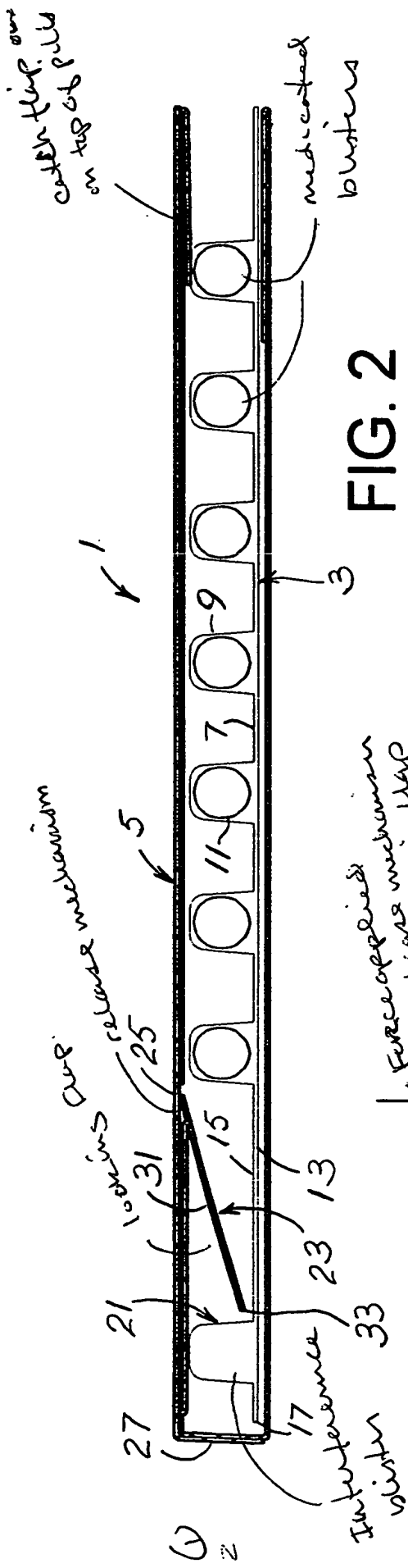


FIG. 1



UNPRINTED SIDE OF PACKAGE SHOWN

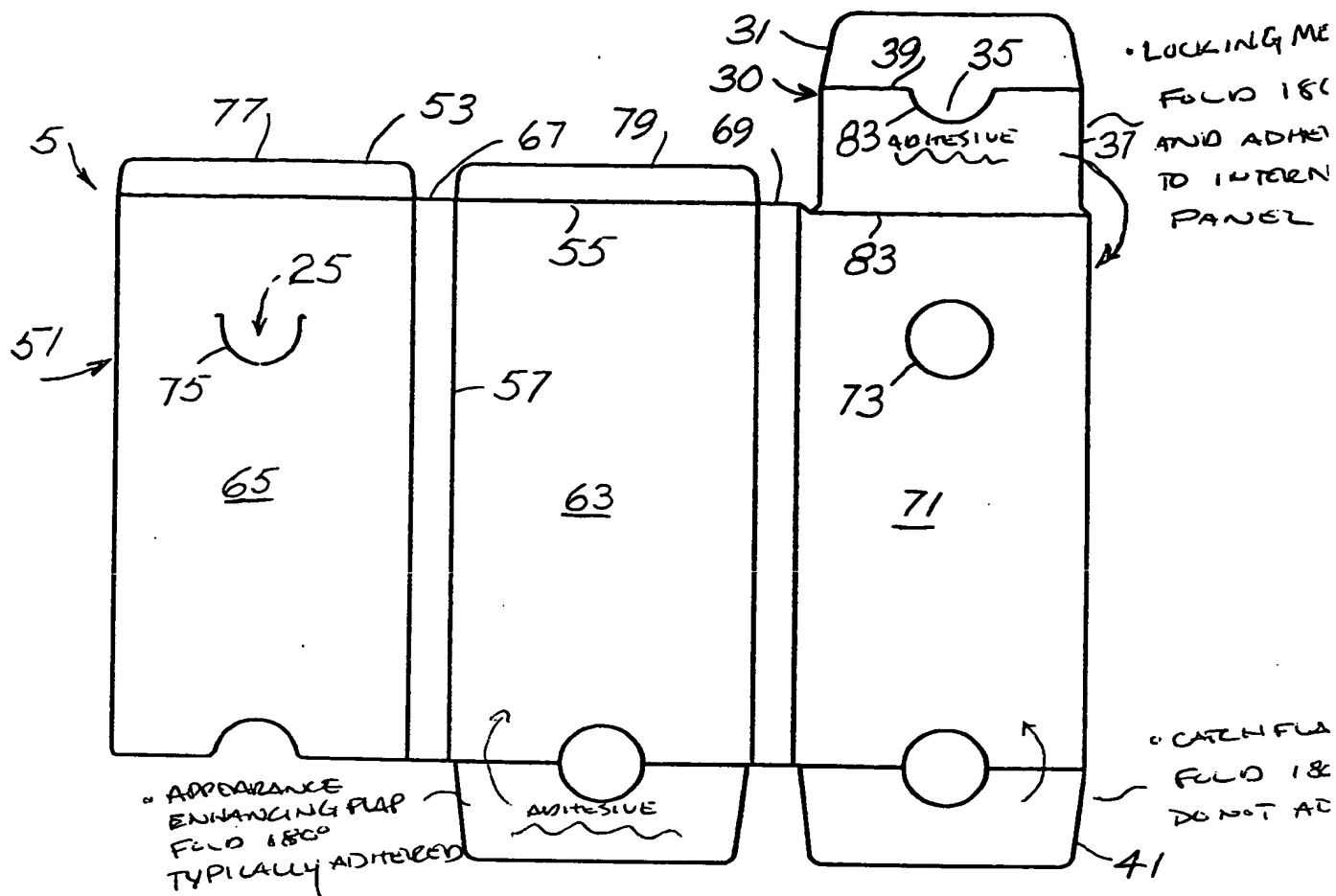


FIG. 5

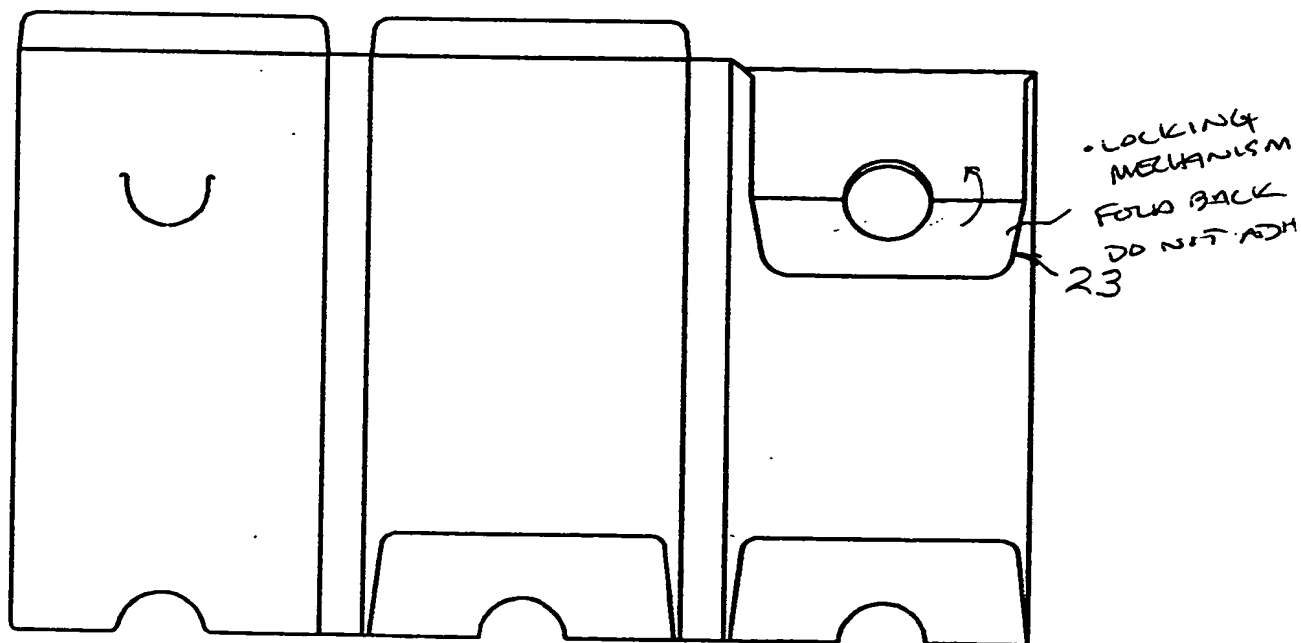
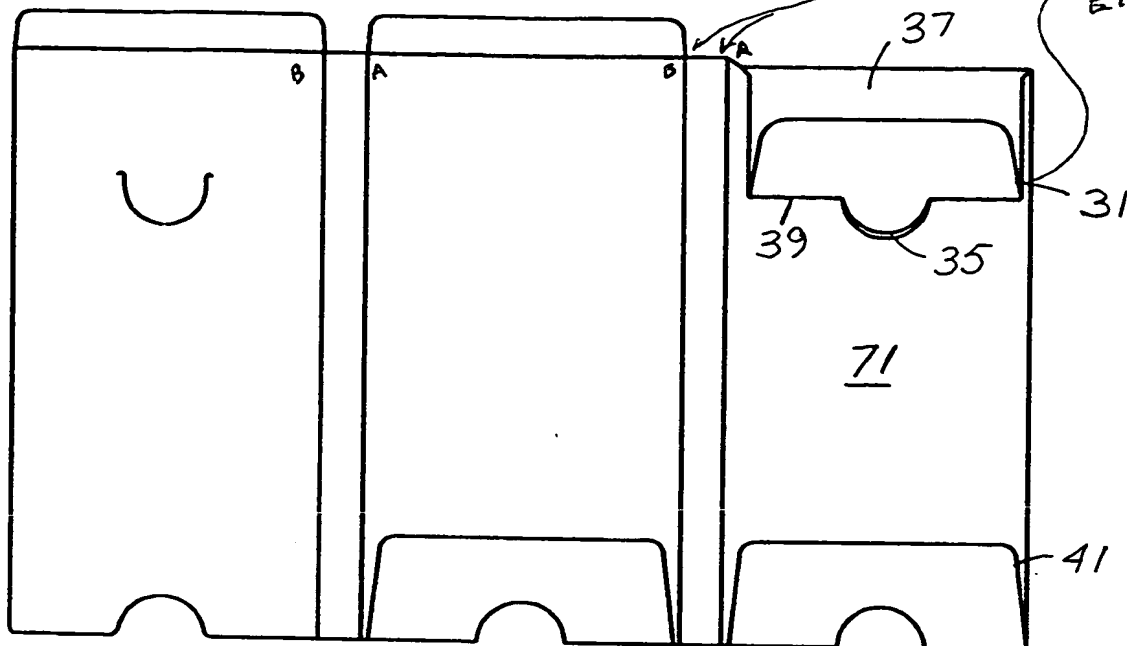


FIG. 6

UNPRINTED SIDE OF PACKAGE SHOWN

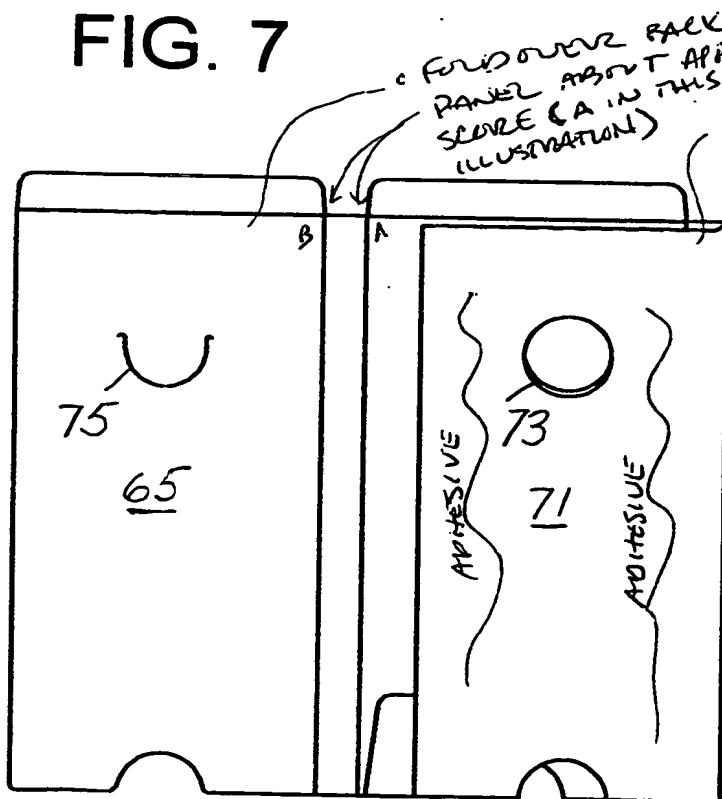
3



FOLD INTERNAL PANEL
180° ABOUT
EITHER SCORE

FIG. 7

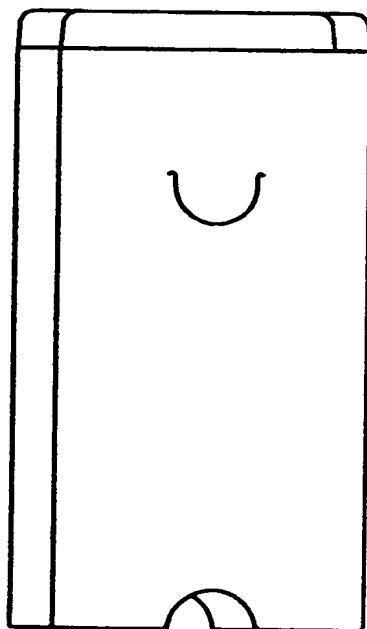
4



FOLD OVER BACK
PANEL ABOUT APPROPRIATE
SCORE (A IN THIS
ILLUSTRATION)

Apply adhesive to
internal panel

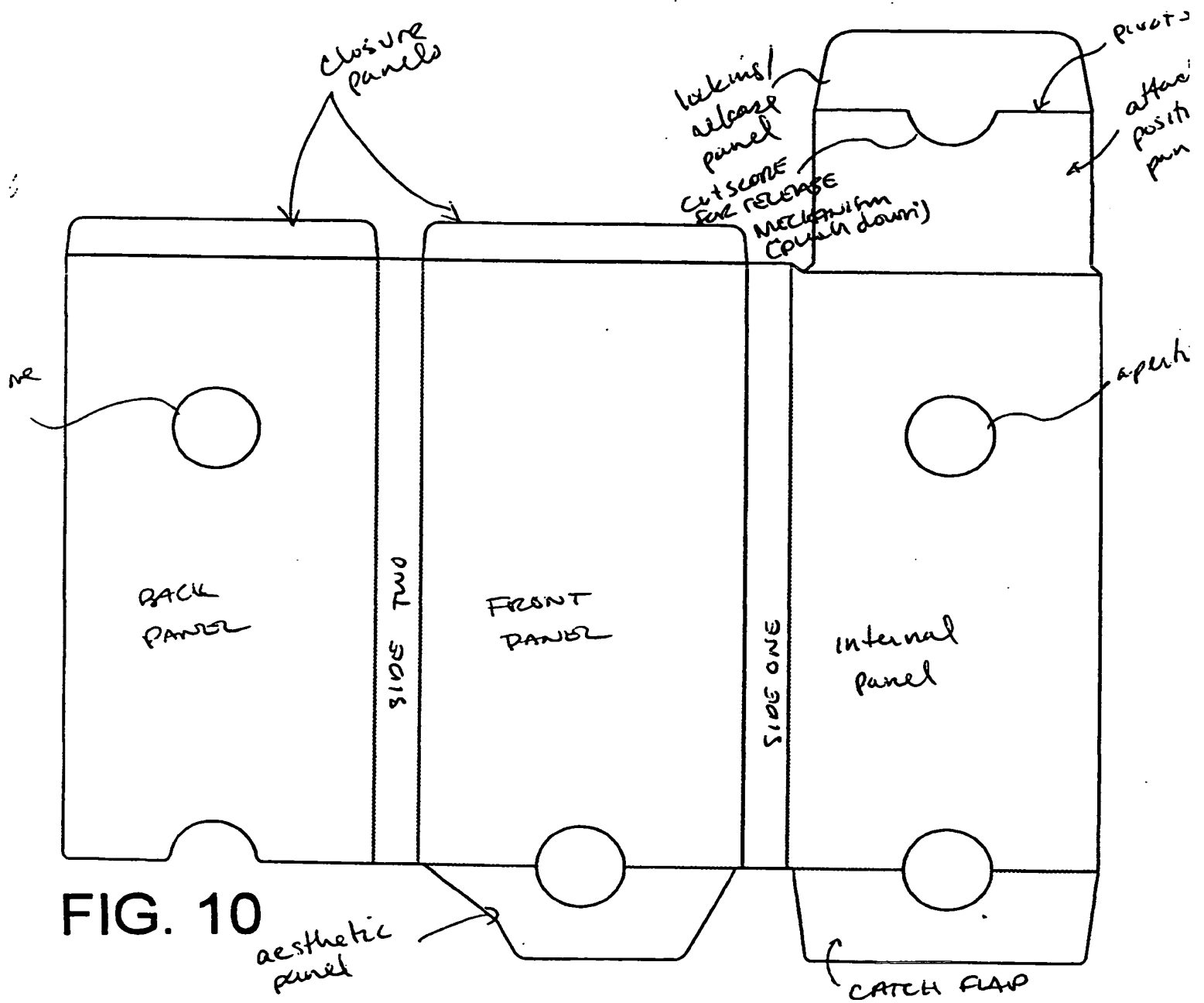
FIG. 8



5

Carton
ready to
be erect
bottom &
and bli
card inc

FIG. 9



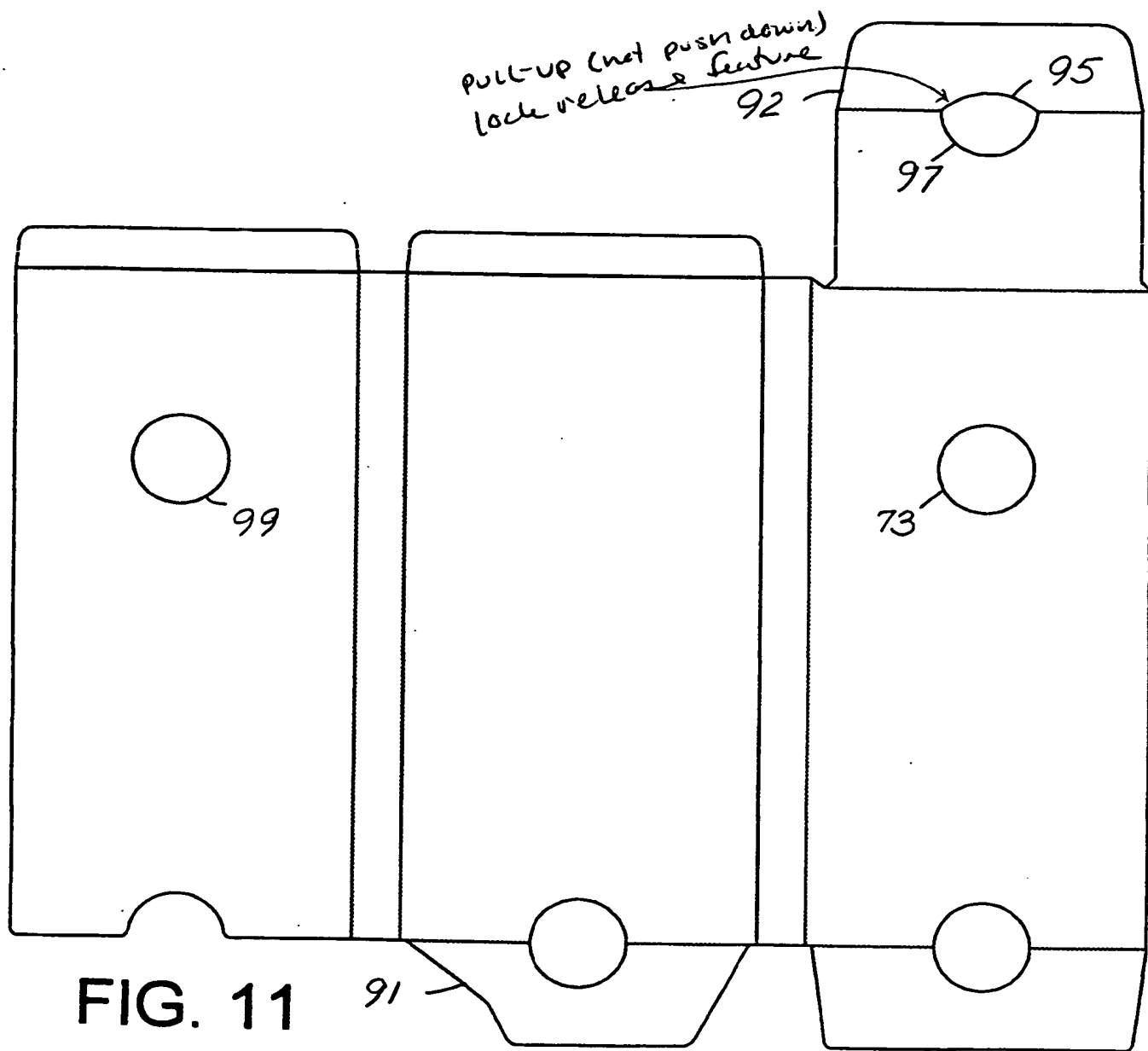
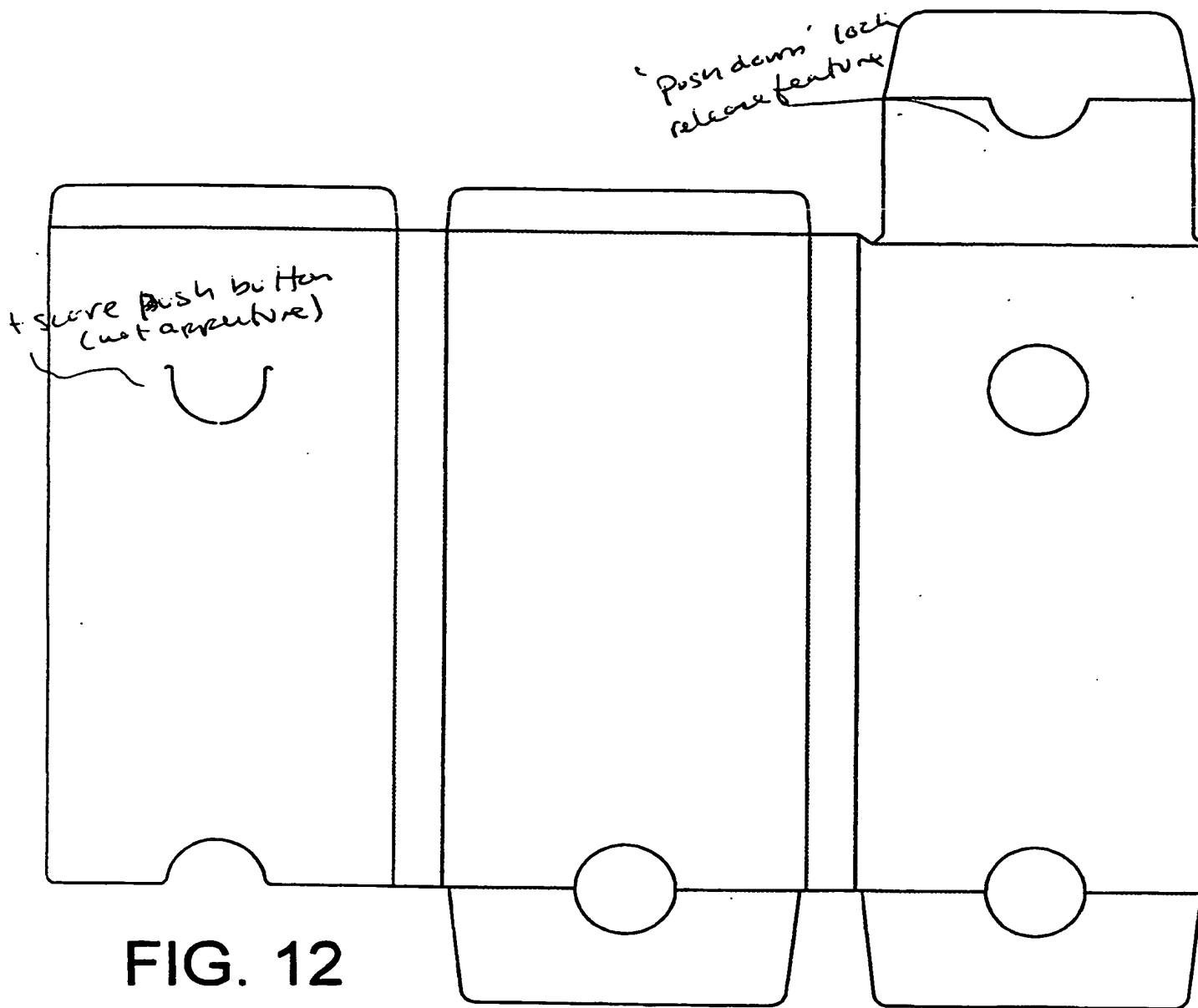


FIG. 11



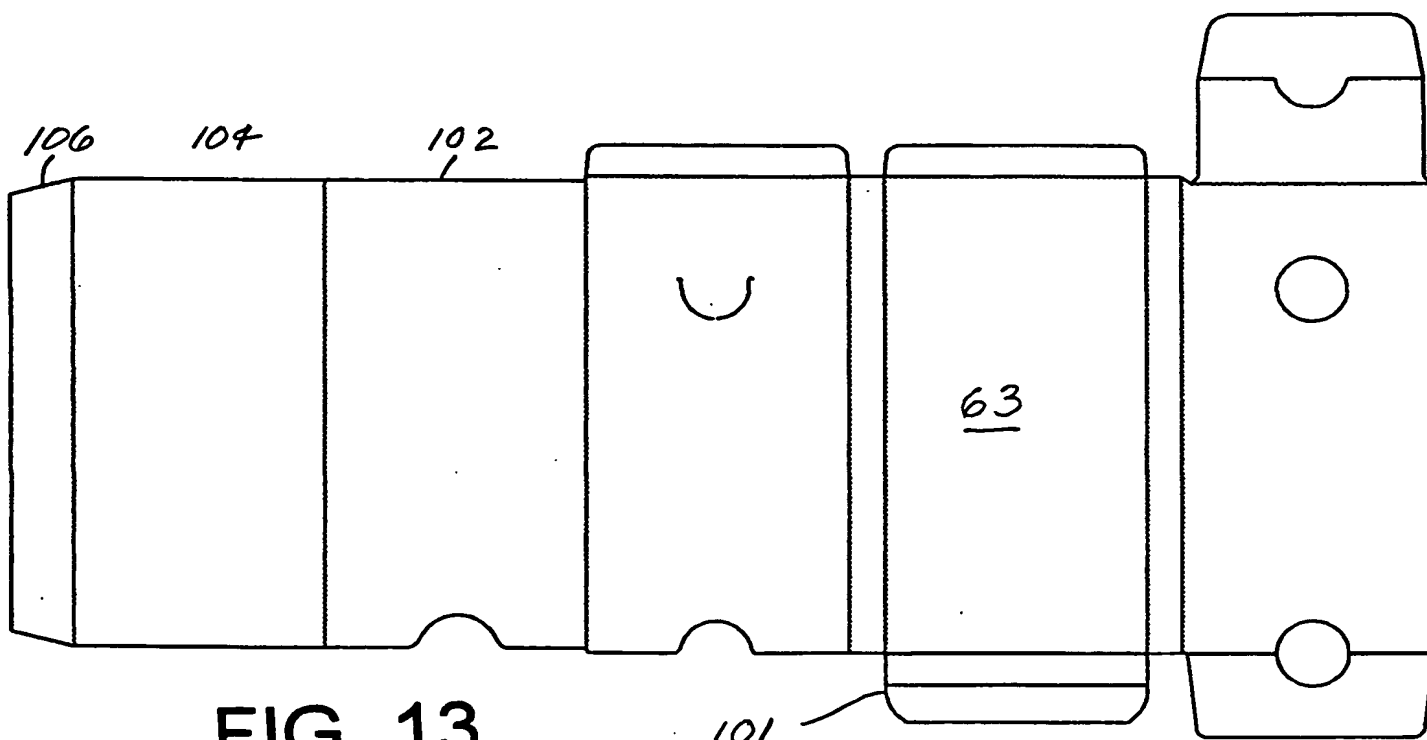


FIG. 13

FIG. 14
FIGURED VIEW OF CARTON WITH
ADDITIONAL PANELS FOR FUNCTION
AESTHETICS, ETC.

PAGE 2 OF 2

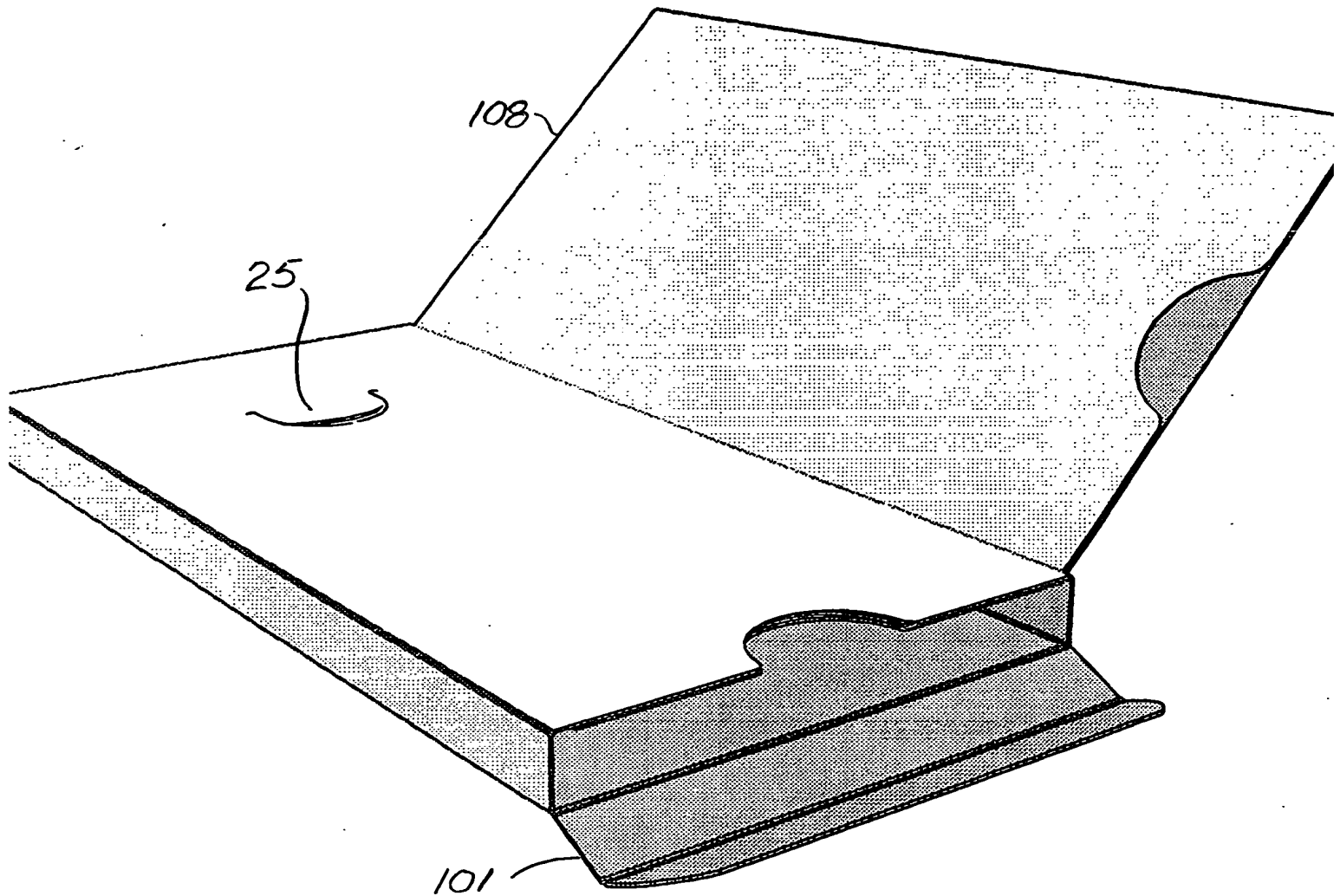


FIG. 14

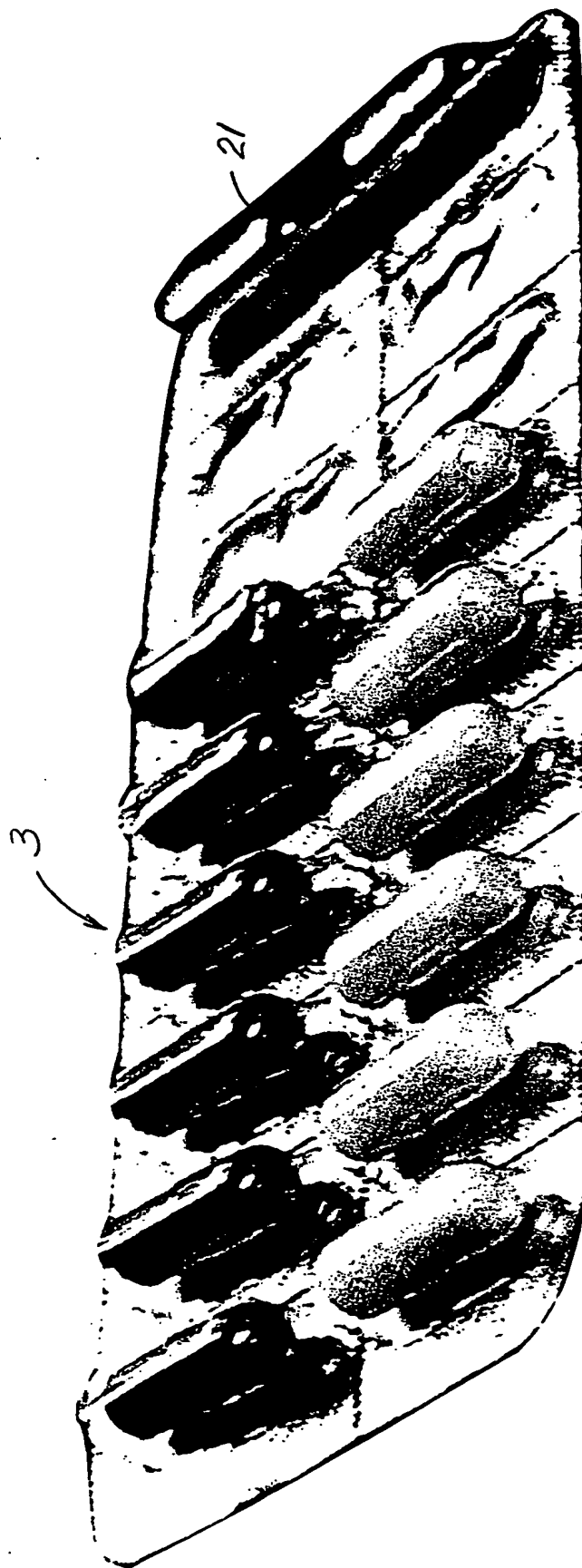


FIG. 15

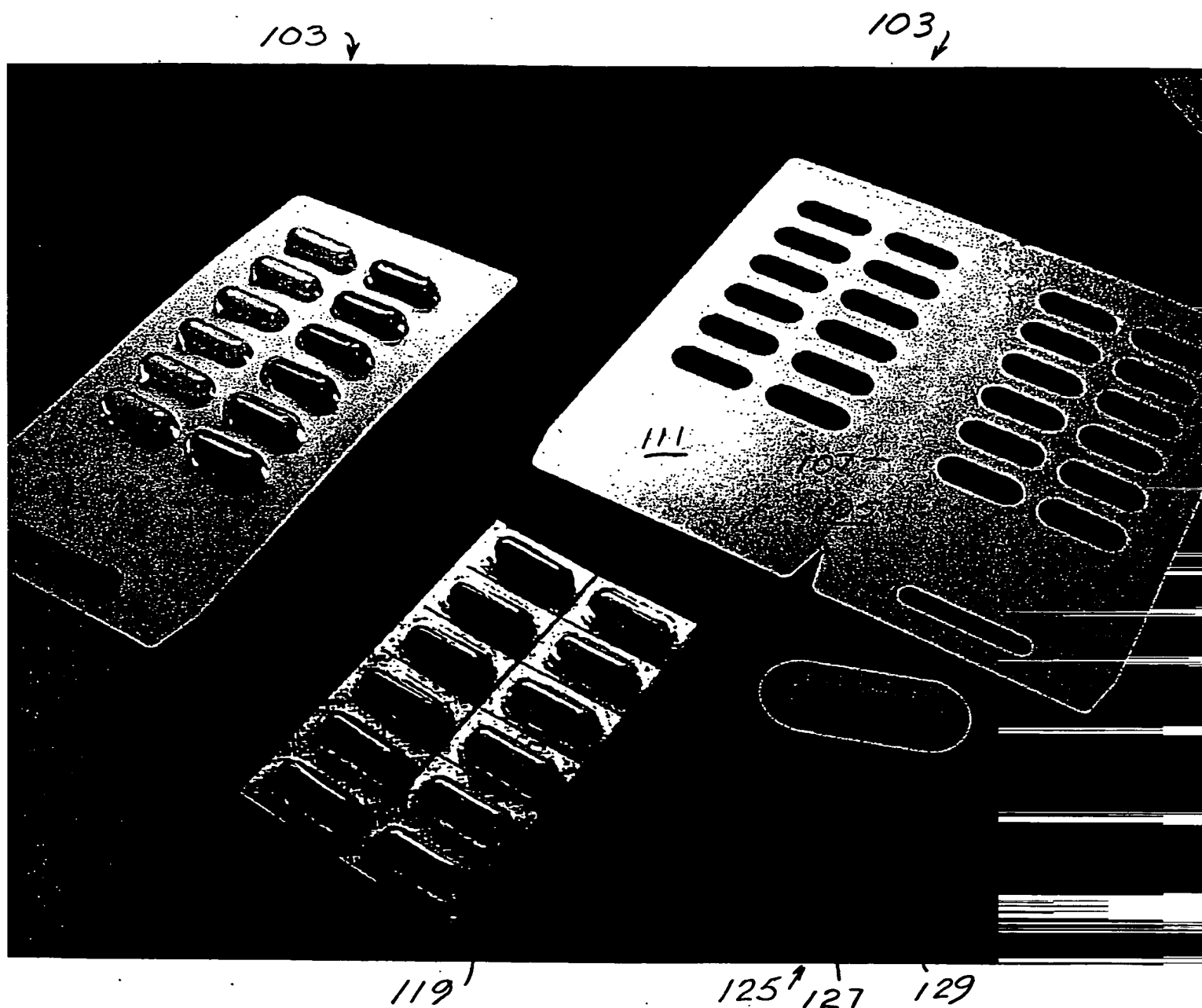


FIG. 16

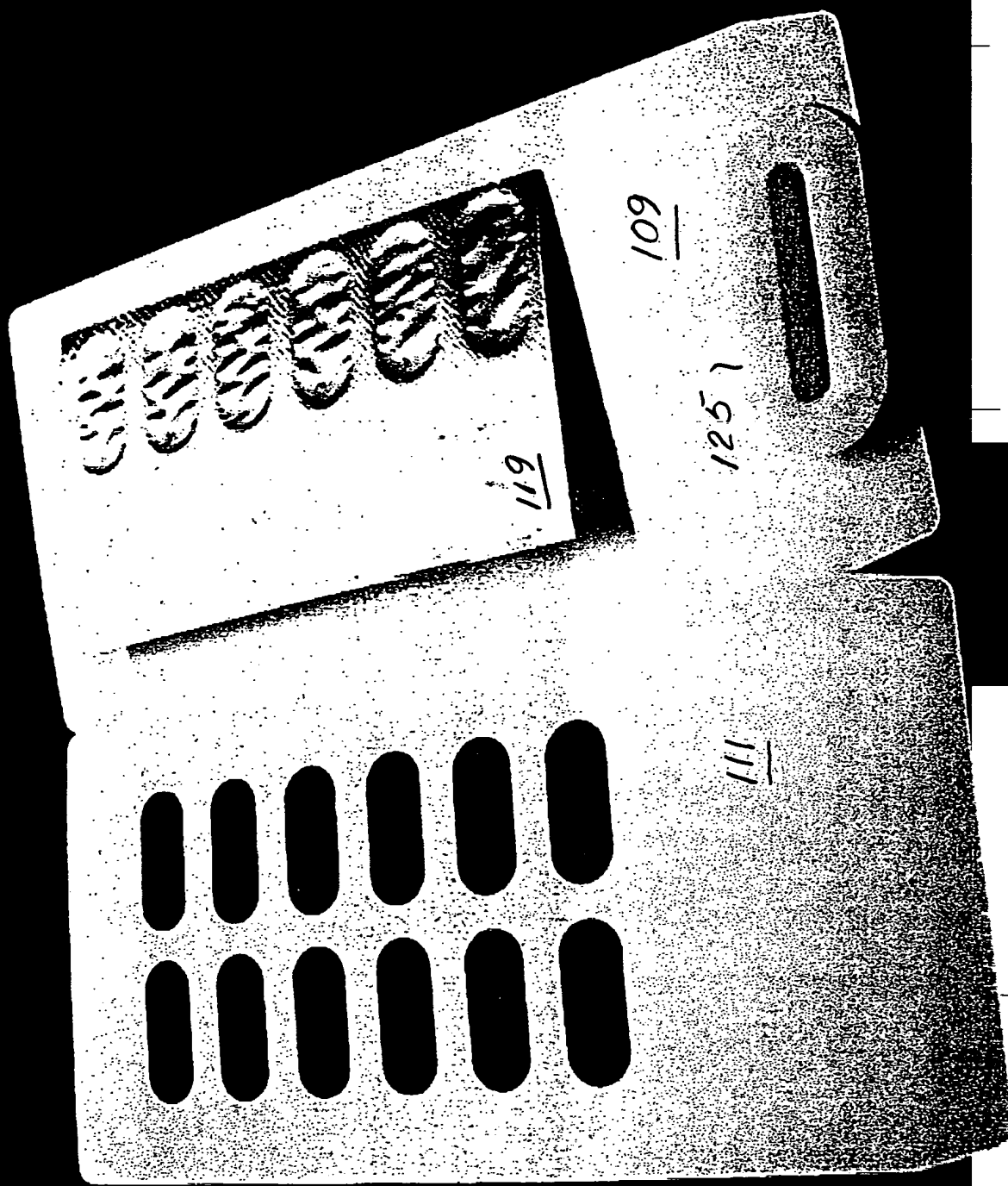


FIG. 17

Document made available under the Patent Cooperation Treaty (PCT)

International application number: PCT/US05/000644

International filing date: 07 January 2005 (07.01.2005)

Document type: Certified copy of priority document

Document details: Country/Office: US
Number: 60/534,401
Filing date: 07 January 2004 (07.01.2004)

Date of receipt at the International Bureau: 21 February 2005 (21.02.2005)

Remark: Priority document submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b)



World Intellectual Property Organization (WIPO) - Geneva, Switzerland
Organisation Mondiale de la Propriété Intellectuelle (OMPI) - Genève, Suisse

This Page is Inserted by IFW Indexing and Scanning Operations and is not part of the Official Record.

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images include but are not limited to the items checked:

- ☐ **BLACK BORDERS**
- ☐ **IMAGE CUT OFF AT TOP, BOTTOM OR SIDES**
- ☐ **FADED TEXT OR DRAWING**
- ☐ **BLURRED OR ILLEGIBLE TEXT OR DRAWING**
- ☐ **SKEWED/SLANTED IMAGES**
- ☒ **COLOR OR BLACK AND WHITE PHOTOGRAPHS**
- ☒ **GRAY SCALE DOCUMENTS**
- ☒ **LINES OR MARKS ON ORIGINAL DOCUMENT**
- ☒ **REFERENCE(S) OR EXHIBIT(S) SUBMITTED ARE POOR QUALITY**
- ☐ **OTHER:** _____

IMAGES ARE BEST AVAILABLE COPY.

As rescanning these documents will not correct the image problems checked, please do not report these problems to the IFW Image Problem Mailbox.